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                MEDLINE update schedule for December 2004
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                 alerts (SDIs) affected
NEWS
    10 DEC 17
                 COMPUAB reloaded; updating to resume; current-awareness
                 alerts (SDIs) affected
NEWS
      11 DEC 17
                 SOLIDSTATE reloaded; updating to resume; current-awareness
                 alerts (SDIs) affected
NEWS
      12 DEC 17
                 CERAB reloaded; updating to resume; current-awareness
                 alerts (SDIs) affected
NEWS
     13 DEC 17
                 THREE NEW FIELDS ADDED TO IFIPAT/IFIUDB/IFICDB
     14 DEC 30
NEWS
                 EPFULL: New patent full text database to be available on STN
    15 DEC 30
                 CAPLUS - PATENT COVERAGE EXPANDED
NEWS
NEWS 16 JAN 03
                 No connect-hour charges in EPFULL during January and
                 February 2005
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     17 FEB 25
                 CA/CAPLUS - Russian Agency for Patents and Trademarks
                 (ROSPATENT) added to list of core patent offices covered
                 STN Patent Forums to be held in March 2005
NEWS
     18 FEB 10
                 STN User Update to be held in conjunction with the 229th ACS
NEWS 19 FEB 16
                 National Meeting on March 13, 2005
                 PATDPAFULL - New display fields provide for legal status
NEWS 20 FEB 28
                 data from INPADOC
NEWS 21 FEB 28 BABS - Current-awareness alerts (SDIs) available
                MEDLINE/LMEDLINE reloaded
    22 FEB 28
NEWS
NEWS 23 MAR 02
                GBFULL: New full-text patent database on STN
NEWS EXPRESS
             JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT
              MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
              AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005
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              STN Operating Hours Plus Help Desk Availability
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              General Internet Information
              Welcome Banner and News Items
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NEWS PHONE
              Direct Dial and Telecommunication Network Access to STN
NEWS WWW
              CAS World Wide Web Site (general information)
```

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=> file reg COST IN U.S. DOLLARS

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FULL ESTIMATED COST

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STRUCTURE FILE UPDATES: 1 MAR 2005 HIGHEST RN 840454-17-3 DICTIONARY FILE UPDATES: 1 MAR 2005 HIGHEST RN 840454-17-3

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

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Uploading C:\Program Files\Stnexp\Queries\106652273.str

chain nodes : 23 24 25 26 27 ring nodes : 1 2 3 4 5 7 10 11 12 13 14 15 16 17 18 19 20 chain bonds : 2-24 3-27 4-25 6-26 14-23 23-24 25-26 ring bonds : 1-2 1-4 2-3 3-4 5-6 5-9 6-7 7-8 8-9 8-19 9-22 10-11 10-14 11-12 11-15 12-13 12-18 13-14 15-16 16-17 17-18 19-20 20-21 21-22

exact/norm bonds :

1-2 1-4 2-3 2-24 3-4 3-27 4-25 5-6 5-9 6-7 6-26 7-8 10-11 10-14 12-13 13-14 14-23 23-24 25-26

normalized bonds :

8-9 8-19 9-22 11-12 11-15 12-18 15-16 16-17 17-18 19-20 20-21 21-22

G1:C,O,S,N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS

#### L1STRUCTURE UPLOADED

=> s 11

SAMPLE SEARCH INITIATED 15:15:51 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 4405 TO ITERATE

22.7% PROCESSED 1000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED) SEARCH TIME: 00.00.01

1 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

\*\*COMPLETE\*\* BATCH 92080

1 SEA SSS SAM L1

PROJECTED ITERATIONS: \ 84120 TO

PROJECTED ANSWERS: 1 TO

=> d scan

L2

REGISTRY COPYRIGHT 2005 ACS on STN 1 ANSWERS L2

1H-Benz[e]indolium, 2-[2-[3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-IN2-ylidene)ethylidene]-2-(4-pyridinyloxy)-1-cyclopenten-1-yl]ethenyl]-1,1,3trimethyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI)

213

MF C44 H42 N3 O . C7 H7 O3 S

CM

#### ALL ANSWERS HAVE BEEN SCANNED

=> s 11 ful

FULL SEARCH INITIATED 15:16:07 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 88488 TO ITERATE

100.0% PROCESSED 88488 ITERATIONS

73 ANSWERS

SEARCH TIME: 00.00.02

L3 73 SEA SSS FUL L1

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COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION

FULL ESTIMATED COST ENTRY SESSION 161.33 161.54

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FILE COVERS 1907 - 2 Mar 2005 VOL 142 ISS 10 FILE LAST UPDATED: 1 Mar 2005 (20050301/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 13

L4 15 L3

=> d 14 ibib hitstr abs 1-15

L4 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:907505 CAPLUS

DOCUMENT NUMBER: 139:388488

TITLE: Image-forming material such as dry resist film having

positive-working photoresist layer

INVENTOR(S): Urano, Toshiyoshi; Uematsu, Takuya; Mizuho, Yuji

PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent Japanese

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003330173	A2	20031119	JP 2002-135385	20020510
PRIORITY APPLN. INFO.:			JP 2002-135385	20020510

OTHER SOURCE(S):

MARPAT 139:388488

625077-46-5

RL: TEM (Technical or engineered material use); USES (Uses) (indole dye for light-to-heat converting material in image-forming material)

RN 625077-46-5 CAPLUS

3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-CN ylidene) ethylidene] -2-(4-methylphenoxy) -1-cyclopenten-1-yl] ethenyl] -1,3,3trimethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 625077-45-4 CMF C38 H41 N2 O

CM 2

CRN 14797-73-0 Cl 04 CMF

GI

The title material has a photoresist layer containing a light-to-heat AB converting material and an alkali-solubilizable resin, wherein the light-to-heat converting material is made of indole dye of I(R1-2 = alkyl; R3 = barbiturate, thiobarbiturate, halo, etc.; m = 2,3; X- = anion; n = 0, 1). The image forming material shows wide development conditions.

ANSWER 2 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

2003:868604 CAPLUS

DOCUMENT NUMBER:

139:371871

TITLE:

Preparation of positive-working photoimaging

composition for offset printing plate

INVENTOR(S):

Urano, Toshiyoshi; Uematsu, Takuya; Mizuho, Yuji

PATENT ASSIGNEE(S):

Mitsubishi Chemical Corp., Japan

Jpn. Kokai Tokkyo Koho, 14 pp.

SOURCE:

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND DATE		APPLICATION NO.	DATE	
JP 2003315991	A2	20031106	JP 2002-121173	20020423	
PRIORITY APPLN. INFO.:			JP 2002-121173	20020423	
OTHER SOURCE(S):	MARPAT	139:371871	•	•	

IT 622398-05-4

> RL: TEM (Technical or engineered material use); USES (Uses) (photothermal conversion substance in pos.-working photoimaging composition

for offset printing plate)

RN

622398-05-4 CAPLUS 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-CN ylidene) ethylidene] -2-(4-methoxyphenoxy) -1-cyclopenten-1-yl]ethenyl] -1,3,3trimethyl-, perchlorate (9CI) (CA INDEX NAME)

CM

CRN 173536-20-4 CMF C38 H41 N2 O2

CRN 14797-73-0 CMF Cl O4

GI

C45H48Cl2N3 Stereo: ns

AB The invention relates to a pos.-working photoimaging composition, comprising a photothermal conversion substance and an alkaline-soluble resin, for direct digital printing platemaking, wherein the photothermal conversion substance is an indole dye represented by I (R1, R2 = alkyl; R3 = barbituric anion; thiobarbituric anion; aromatic ring oxy, aromatic ring thio, heterocyclic oxy, heterocyclic thio, halo; m = 2, 3; X- = anion; n = 0, 1).

Ι

L4 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:678364 CAPLUS

DOCUMENT NUMBER: 139:205006

TITLE: Thermally developable imaging materials with improved

image uniformity

INVENTOR(S): Hunt, Bryan V.; Kong, Steven H.; Ramsden, William D.;

Labelle, Gary E.

PATENT ASSIGNEE(S): Eastman Kodak Company, USA

SOURCE:

U.S. Pat. Appl. Publ., 43 pp.

CODEN: USXXCO

DOCUMENT TYPE:

Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
US 2003162134	A1	20030828	US 2001-11892	20011205	
US 6689547	B2	20040210			
PRIORITY APPLN. INFO.:			US 2001-11892	20011205	
OTHER SOURCE(S):	MARPAT	139:205006			

IT 583839-62-7

RL: TEM (Technical or engineered material use); USES (Uses) (radiation absorbing compound; thermally developable imaging materials with improved image uniformity containing)

RN583839-62-7 CAPLUS

1H-Benz[e]indolium, 2-[2-[2-(4-cyanophenoxy)-3-[(1,3-dihydro-1,1,3-CNtrimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclopenten-1yl]ethenyl]-1,1,3-trimethyl-, hexafluorophosphate(1-) (9CI) (CA:INDEX NAME)

CM1

CRN 583839-61-6 CMF C46 H42 N3 O

CM2

CRN 16919-18-9 CMF F6 P

CCI CCS

AB A photothermog. material comprises a support having thereon one or more thermally-developable imaging layers comprising a binder and in reactive association, a photosensitive silver halide, a non-photosensitive source of reducible silver ions, and a reducing composition for the non-photosensitive source reducible silver ions. The thermally-developable layers further comprises one or more radiation absorbing compds. that provide a total absorbance of > 0.6 and up to and including 3 in the thermally-developable imaging layer(s). These photothermog. materials exhibit reduced mottle without significant loss in sensitivity.

L4 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

2000:209951 CAPLUS

DOCUMENT NUMBER:

132:233734

TITLE:

Near infrared fluorescent contrast agent and

fluorescence imaging

INVENTOR(S):

Miwa, Naoto; Inagaki, Michihito; Eguchi, Hiroaki;

PATENT ASSIGNEE(S):

Okumura, Masafumi; Inagaki, Yoshio; Harada, Toru Schering Aktiengesellschaft, Germany; Fuji Photo Film

Co., Ltd.

SOURCE:

PCT Int. Appl., 129 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA	TENT	NO.			KIN	D	DATE			APP:	LICAT	CION	NO.		D.	ATE	
	2000															 9990	
	W:	ΑE,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	ВG	, BR,	BY,	CA,	CH,	CN,	CR,	CU,
		CZ,	DE,	DK,	DM,	EE,	ES,	FI,	GB,	GD	, GE,	GH,	GM,	HR,	HU,	ID,	IL,
		IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC	, LK,	LR,	LS,	LT,	LU,	LV,	MD,
											, RO,						
											, VN,						
		KG,	KZ,	MD,	RU,	TJ,	TM			•							
	RW:	GH,	GM,	KE,	LS,	MW,	SD,	SL,	SZ,	TZ	, UG,	ZW,	AT,	BE,	CH,	CY,	DE,
		DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	ΙT,	LU	, MC,	NL,	PT,	SE,	BF,	ВJ,	CF,
		CG,	CI,	CM,	GΑ,	GN,	GW,	ML,	MR,	NE	, SN,	TD,	TG				
·JP	2000	0957	58		A2		2000	0404		JP :	1998-	2833	01		1	9980	918
CA	2344	315			- AA		2000	0330		CA :	1999-	2344	315		1	9990	916
	2413	033			AA		2000	0330		CA :	1999-	2413	033		1	9990	916
	9959	814			A1		2000	0410		AU :	1999-	5981	4		1	9990	916
	7639	91			B2		2003	0807									
	9913	849			A		2001	0612		BR :	1999-	1384	9		1	9990	916
	1113	822			A1		2001	0711		EP :	1999- 1999- 1999- 1999- 1999-	9693	41		1	9990	916
EP	1113	022			ът		2003	0903									
	R:							FR,	GB,	GR	, IT,	LI,	LU,	NL,	SE,	MC,	PT,
					LV,									_			
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	2001										2001-						
	2002										2000-					9990	
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	2486	ΛD			A.		2003				1999- 1999-					9990: 9990:	
	11138	822			T		2003				1999- 1999-					9990:	
	2207	338			A E T T3		2004(				1999- 1999-					9990	
	1053	37			Δ		2004				1999 <b>-</b> 2001-					9990: 0010:	
	1074				A		2001.				2001- 2002-					0010	
	2001		3.8		A		2001				2002 - 2001 -					0010	
												-550			2	0010.	-10

NO 2002005819	Α	20010516	NO	2002-5819		20021204
US 2003180221	A1	20030925	US	2002-324010		20021220
NZ 525453	Α	20030926	NZ	2003-525453		20030423
PRIORITY APPLN. INFO.:			JP	1998-283301	Α	19980918
			JP	2000-573771	A3	19990916
			NZ	1999-510019	Α	19990916
			WO	1999-EP7088	W	19990916
			CA	1999-2344315	A3	19990918
			US	2001-787394	A3	20010516

OTHER SOURCE(S):

MARPAT 132:233734

IT 262284-02-6

> RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (near IR fluorescent contrast agent and fluorescence imaging)

RN 262284-02-6 CAPLUS

CN 3H-Indolium, 2-[2-[3-[[1,3-dihydro-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-2-[(5-sulfo-1-naphthalenyl)oxy]-1cyclopenten-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt, tetrasodium salt (9CI) (CA INDEX NAME)

## Na

AB A near IR fluorescent contrast agent comprising a compound having three or more sulfonic acid groups in a mol., and a method of fluorescence imaging comprising introducing the near IR fluorescent contrast agent of the present invention into a living body, exposing the body to an excitation light, and detecting near IR fluorescence from the contrast agent. The near IR fluorescent contrast agent of the present invention is excited by an excitation light and emits near IR fluorescence. This IR fluorescence is superior in transmission through biol. tissues. Thus, detection of lesions in the deep part of a living body has been made possible. In addition, the inventive contrast agent is superior in water solubility and low toxic, and therefore, it can be used safely. 11

REFERENCE COUNT:

THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 5 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1996:385944 CAPLUS

DOCUMENT NUMBER:

125:44968

TITLE:

Silver halide photographic material with superior IR

censor detectability and sensitivity

INVENTOR(S):

Harada, Tooru; Suzuki, Keiichi Fuji Photo Film Co Ltd, Japan

PATENT ASSIGNEE(S): SOURCE:

Jpn. Kokai Tokkyo Koho, 22 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08095197	A2	19960412	JP 1994-227982	19940922
PRIORITY APPLN. INFO.:			JP 1994-227982	19940922

IT 178106-29-1 178106-30-4

RL: DEV (Device component use); USES (Uses)

(dye for photog. material)

RN 178106-29-1 CAPLUS

3H-Indolium, 2,2'-[(1-methylethylidene)bis[4,1-phenyleneoxy[3-[(5-carboxy-CN1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclopentene-2,1-diyl]-2,1-ethenediyl]]bis[5-carboxy-1,3,3-trimethyl-, bis(inner salt) (9CI) (CA INDEX NAME)

PAGE 2-A

| Me

$$\begin{array}{c|c} & \text{Me} & \\ & \\ & \\ \text{N} & \\ \text{CH-CH} \\ \\ \text{Me} & \\ \end{array}$$

PAGE 3-A

RN 178106-30-4 CAPLUS

CN 3H-Indolium, 2,2'-[sulfonylbis[4,1-phenyleneoxy[3-[(5-carboxy-1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclopentene-2,1-diyl]-2,1-ethenediyl]]bis[5-carboxy-1,3,3-trimethyl-, bis(inner salt) (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

$$Me$$
 $N$ 
 $CH-CH$ 
 $Me$ 
 $Me$ 
 $Me$ 
 $Me$ 

GI

AB The title photog. material contains a dye I (Z1, Z2 = atoms required to form a 5-6-membered ring; R1, R2 = alkyl, alkenyl, aralkyl; R3 and R5 may be H, or connected to form a 5-6-membered ring; R4 = divalent group; a, b = 0, 1; X = anion; n = 1, 2). 2 Modifications of the dye are also claimed.

L4 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN ACCESSION NUMBER: 1996:366130 CAPLUS

DOCUMENT NUMBER:

125:99952

TITLE:

Photographic element with ether dye for near-infrared

antihalation

INVENTOR (S):

Fabricius, Dietrich M.; Schelhorn, Thomas

PATENT ASSIGNEE(S):

E. I. Du Pont de Nemours & Co., USA

SOURCE:

U.S., 14 pp., Cont.-in-part of U.S. Ser. No. 195,068,

abandoned.

CODEN: USXXAM

DOCUMENT TYPE:

Patent English

LANGUAGE:

תוחו. כ

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
US 5519145	 А	19960521	US 1994-225388	19940408		
JP 07287346	A2	19951031	JP 1995-82178	19950407		
US 5536626	Α	19960716	US 1995-445455	19950531		
PRIORITY APPLN. INFO.:			US 1994-195068	B2 19940214		
		•	US 1994-225388	A 19940408		

OTHER SOURCE(S):

MARPAT 125:99952

IT 173536-21-5P 173536-22-6P 173536-23-7P 173536-25-9P 173536-27-1P 173536-29-3P 173536-30-6P 173536-31-7P 173536-32-8P

173536-34-0P 173536-35-1P 173536-37-3P

173536-53-3P 173536-55-5P 173536-57-7P

179028-69-4P 179028-72-9P 179028-74-1P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation and use as near-IR antihalation dye for silver halide photog. films)

RN 173536-21-5 CAPLUS

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(4-methoxyphenoxy)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 173536-20-4 CMF C38 H41 N2 O2

CM 2

CRN 37181-39-8 CMF C F3 O3 S

RN 173536-22-6 CAPLUS

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-[3-(dimethylamino)phenoxy]-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, chloride (9CI) (CA INDEX NAME)

● Cl -

RN 173536-23-7 CAPLUS

CN 3H-Indolium, 2-[2-[4-(2-amino-2-oxoethyl)phenoxy]-3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, chloride (9CI) (CA INDEX NAME)

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2ylidene) ethylidene] -2-[4-(ethoxycarbonyl) phenoxy] -1-cyclopenten-1yl]ethenyl]-1,3,3-trimethyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

173536-24-8 CRN CMF C40 H43 N2 O3

CM

CRN 37181-39-8 CMF C F3 O3 S

RN

173536-27-1 CAPLUS 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-CNylidene) ethylidene] -2-(4-formylphenoxy) -1-cyclopenten-1-yl] ethenyl] -1,3,3trimethyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM1

CRN 173536-26-0 CMF C38 H39 N2 O2

CRN 37181-39-8 CMF C F3 O3 S

RN 173536-29-3 CAPLUS

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(4-sulfophenoxy)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 173536-28-2 CMF C37 H39 N2 O4 S

CM 2

CRN 37181-39-8 CMF C F3 O3 S

RN 173536-30-6 CAPLUS

CN 3H-Indolium, 2-[2-[2-(4-carboxyphenoxy)-3-[[1,3-dihydro-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-1-cyclopenten-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt, tetrasodium salt (9CI) (CA INDEX NAME)

4 Na

RN 173536-31-7 CAPLUS

CN 3H-Indolium, 2-[2-[3-[[1,3-dihydro-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-2-(2-hydroxy-3,5-disulfophenoxy)-1-cyclopenten-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt, pentasodium salt (9CI) (CA INDEX NAME)

HO3S SO3H .

HO3S Me Me Me CH CH CH CH CH 
$$(CH_2)_4 - SO_3H$$

●5 Na

RN

CN 1H-Benz[e]indolium, 2-[2-[3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-2-(4-methoxyphenoxy)-1-cyclopenten-1-yl]ethenyl]-1,1,3-trimethyl-, chloride (9CI) (CA INDEX NAME)

● Cl -

RN 173536-34-0 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[[1,3-dihydro-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-2-(4-methoxyphenoxy)-1-cyclopenten-1-yl]ethenyl]-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-, inner salt, sodium salt, compd. with N,N-diethylethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 173536-33-9

CMF C52 H56 N2 O14 S4

CM 2

CRN 121-44-8

CMF C6 H15 N

RN 173536-35-1 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[[1,3-dihydro-1,1-dimethyl-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-2-(4-methoxyphenoxy)-1-cyclopenten-1-yl]ethenyl]-1,1-dimethyl-3-(4-sulfobutyl)-, inner salt, sodium salt (9CI) (CA INDEX NAME)

Na

RN 173536-37-3 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-2-[4-(ethoxycarbonyl)phenoxy]-1-cyclopenten-1-yl]ethenyl]-1,1,3-trimethyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 173536-36-2 CMF C48 H47 N2 O3

CRN 16722-51-3 CMF C7 H7 O3 S

RN 173536-53-3 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-2-(4-pyridinyloxy)-1-cyclopenten-1-yl]ethenyl]-1,1,3-trimethyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 173536-52-2 CMF C44 H42 N3 O

CM 2

CRN 16722-51-3 CMF C7 H7 O3 S

RN 173536-55-5 CAPLUS

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(4-pyridinyloxy)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 173536-54-4 CMF C36 H38 N3 O

CM 2

CRN 37181-39-8 CMF C F3 O3 S

RN 173536-57-7 CAPLUS
CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(3-pyridinyloxy)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 173536-56-6 CMF C36 H38 N3 O

CM 2

CRN · 37181-39-8 CMF C F3 O3 S

RN

179028-69-4 CAPLUS 3H-Indolium, 2-[2-[4-(carboxymethyl)phenoxy]-3-[(1,3-dihydro-1,3,3-CN trimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-1,3,3trimethyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 179028-68-3 CMF C39 H41 N2 O3

CM: 2

CRN 37181-39-8 CMF C F3 O3 S

RN

179028-72-9 CAPLUS 3H-Indolium, 2-[2-[2-(3,5-dicarboxyphenoxy)-3-[(1,3-dihydro-1,3,3-CN trimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-1,3,3trimethyl-, salt with trifluoromethanesulfonic acid (1:1), disodium salt (9CI) (CA INDEX NAME)

CM1

CRN 179028-71-8 CMF C39 H39 N2 O5 . C F3 O3 S

> CM 2

CRN 179028-70-7 CMF C39 H39 N2 O5

CM 3

CRN 37181-39-8 CMF C F3 O3 S

RN 179028-74-1 CAPLUS

CN 3H-Indolium, 2-[2-[3-[[1,3-dihydro-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-2-(3-pyridinyloxy)-1-cyclopenten-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt, tripotassium salt (9CI) (CA INDEX NAME)

HO<sub>3</sub>S 
$$\stackrel{\text{Me}}{\longrightarrow}$$
  $\stackrel{\text{Me}}{\longrightarrow}$  CH  $\stackrel{\text{CH}}{\longrightarrow}$  CH  $\stackrel{\text{CH}}{\longrightarrow}$  CH  $\stackrel{\text{CH}}{\longrightarrow}$  SO<sub>3</sub>H  $\stackrel{\text{CH}}{\longrightarrow}$  (CH<sub>2</sub>)<sub>4</sub>  $\stackrel{\text{SO}_3}{\longrightarrow}$  H

AB A novel dye and photog. element comprising the dye are disclosed. The dye is especially useful as an antihalation dye in a photog. element. particularly preferred embodiment is provided in a photog. element comprising an absorbing amount of the dye having the general formula I wherein X1, X2 independently represents CR8R9, S, Se, NR10, CH=CH, or O; R1 and R2 independently represent alkyl of 1 to 10 carbons or substituted alkyl of 1 to 10 carbons; R3 represents a ring chosen from the set consisting of aromatic rings of 6 or 10 carbons, substituted aromatic rings of 6

or 10 carbons, heterocyclic rings and substituted heterocyclic rings; R4, R5, R6, and R7 independently represent hydrogen, alkyl of 1-10 carbons, substituted alkyl of 1-10 carbons; R8, R9 independently represent alkyl of 1-10 carbons, substituted alkyl of 1-10 carbons, aromatic ring of 6 or 10 carbons, substituted aromatic ring of 6 or 10 carbons; R10 represents alkyl of 1-10 carbons, substituted alkyl of 1-10 carbons, aromatic ring of 6 or 10 carbons, substituted aromatic ring of 6 or 10 carbons; Q represents a counterion; and n is an integer of 2 and 3.

CAPLUS COPYRIGHT 2005 ACS on STN ANSWER 7 OF 15

ACCESSION NUMBER:

1996:115129 CAPLUS

DOCUMENT NUMBER:

124:160219

TITLE:

Photographic element containing novel dye for

preventing near IR halation

PATENT ASSIGNEE(S):

du Pont de Nemours, E. I., and Co., USA

SOURCE:

Jpn. Kokai Tokkyo Koho, 18 pp.

DOCUMENT TYPE:

NAME)

CODEN: JKXXAF Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
					-	
	JP 07287346	A2	19951031	JP 1995-82178		19950407
	US 5519145	Α	19960521	US 1994-225388		19940408
PRIO	RITY APPLN. INFO.:			US 1994-225388	Α	19940408
				US 1994-195068	B2	19940214
ΙT	173536-21-5P 173536	-22-6P	173536-23-7P			
	173536-25-9P 173536	-27-1P	173536-29-3P			
	173536-30-6P 173536	-31-7P	173536-32-8P			
	173536-34-0P 173536	-35-1P	173536-37-3P			
	173536-53-3P 173536					
	RL: DEV (Device com	ponent	use); IMF (I:	ndustrial manufactur	e) ;	PREP
	(Preparation); USES	(Uses)				
	(prepared as dye	for pr	eventing near	r IR halation of pho	tog.	. element)
RN	173536-21-5 CAPLUS				_	
CN	3H-Indolium, 2-[2-[3	3-[(1,3	-dihydro-1,3	,3-trimethyl-2H-indo	1-2-	-
				y)-1-cyclopenten-1-y		
	trimethyl-, salt with	th trif	luoromethane	sulfonic acid (1:1)	(9C)	(CA INDEX

CRN 173536-20-4 CMF C38 H41 N2 O2

CM 2

CRN 37181-39-8 CMF C F3 O3 S

RN 173536-22-6 CAPLUS

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-[3-(dimethylamino)phenoxy]-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, chloride (9CI) (CA INDEX NAME)

• c1 -

RN 173536-23-7 CAPLUS

CN 3H-Indolium, 2-[2-[2-[4-(2-amino-2-oxoethyl)phenoxy]-3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-1,3,3-

trimethyl-, chloride (9CI) (CA INDEX NAME)

Cl -

RN

173536-25-9 CAPLUS 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-CN ylidene) ethylidene] -2-[4-(ethoxycarbonyl) phenoxy] -1-cyclopenten-1yl]ethenyl]-1,3,3-trimethyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM1

173536-24-8 CRN CMF C40 H43 N2 O3

CM

CRN 37181-39-8 CMF C F3 O3 S

RN

173536-27-1 CAPLUS 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-CNylidene) ethylidene] -2-(4-formylphenoxy) -1-cyclopenten-1-yl] ethenyl] -1,3,3trimethyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 173536-26-0 CMF C38 H39 N2 O2

CM 2

CRN 37181-39-8 C F3 O3 S CMF

RN173536-29-3 CAPLUS

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2ylidene) ethylidene] -2-(4-sulfophenoxy) -1-cyclopenten-1-yl]ethenyl]-1,3,3trimethyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 173536-28-2 CMF C37 H39 N2 O4 S

CRN 37181-39-8 CMF C F3 O3 S

RN 173536-30-6 CAPLUS

CN 3H-Indolium, 2-[2-[2-(4-carboxyphenoxy)-3-[[1,3-dihydro-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-1-cyclopenten-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt, tetrasodium salt (9CI) (CA INDEX NAME)

## 4 Na

RN 173536-31-7 CAPLUS

CN 3H-Indolium, 2-[2-[3-[[1,3-dihydro-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-2-(2-hydroxy-3,5-disulfophenoxy)-1-cyclopenten-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt, pentasodium salt (9CI) (CA INDEX NAME)

●5 Na

RN 173536-32-8 CAPLUS

CN lH-Benz[e]indolium, 2-[2-[3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-2-(4-methoxyphenoxy)-1-cyclopenten-1-yl]ethenyl]-1,1,3-trimethyl-, chloride (9CI) (CA INDEX NAME)

● Cl -

RN 173536-34-0 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[[1,3-dihydro-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-2-(4-methoxyphenoxy)-1-cyclopenten-1-yl]ethenyl]-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-, inner salt, sodium salt, compd. with N,N-diethylethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 173536-33-9 CMF C52 H56 N2 O14 S4

CRN 121-44-8 CMF C6 H15 N

RN 173536-35-1 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[[1,3-dihydro-1,1-dimethyl-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-2-(4-methoxyphenoxy)-1-cyclopenten-1-yl]ethenyl]-1,1-dimethyl-3-(4-sulfobutyl)-, inner salt, sodium salt (9CI) (CA INDEX NAME)

Na

RN 173536-37-3 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-2-[4-(ethoxycarbonyl)phenoxy]-1-cyclopenten-1-yl]ethenyl]-1,1,3-trimethyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CRN 173536-36-2 CMF C48 H47 N2 O3

CM 2

CRN 16722-51-3 CMF C7 H7 O3 S

RN 173536-53-3 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-2-(4-pyridinyloxy)-1-cyclopenten-1-yl]ethenyl]-1,1,3-trimethyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 173536-52-2 CMF C44 H42 N3 O

CRN 16722-51-3 CMF C7 H7 O3 S

RN 173536-55-5 CAPLUS

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(4-pyridinyloxy)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 173536-54-4 CMF C36 H38 N3 O

CM 2

CRN 37181-39-8 CMF C F3 O3 S

RN 173536-57-7 CAPLUS

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(3-pyridinyloxy)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 173536-56-6 CMF C36 H38 N3 O

CM 2

CRN 37181-39-8 CMF C F3 O3 S

GI

$$\begin{array}{c} \mathbb{R}^4 \\ \times \mathbb{R}^1 \end{array} \xrightarrow{\text{CH}} \begin{array}{c} \mathbb{C} \mathbb{H}_2 \\ \mathbb{C} \mathbb{H}_2 \\ \mathbb{C} \mathbb{H}_3 \end{array} \xrightarrow{\mathbb{Q}^-} \begin{array}{c} \mathbb{R}^2 \\ \mathbb{R}^2 \end{array} \xrightarrow{\mathbb{R}^7} \begin{array}{c} \mathbb{R}^6 \\ \mathbb{R}^7 \end{array}$$

AB The title photog. element contains a novel dye I (X1, X2 = CR8R9(R8, R9 = C1-10 alkyl, C6-10 aromatic ring), S, Se, NR10(R10 = 1-10 alkyl, C6-10 aromatic ring), CH:CH, O; R1 and R2 = 1-10 alkyl, C6-10 aromatic ring or heterocyclic ring; Q = counter ion; n = 2, 3).

L4 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1994:633080 CAPLUS

DOCUMENT NUMBER:

121:233080

TITLE:

Indolenine cyanine dyes .

INVENTOR(S):

Harada, Tooru

PATENT ASSIGNEE(S):

Fuji Photo Film Co Ltd, Japan Jpn. Kokai Tokkyo Koho, 13 pp.

SOURCE: Jpn. Kokai To.
CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.

KIND DATE

APPLICATION NO.

DATE

JP 06145539 A2 19940524 JP 1992-295163 19921104

PRIORITY APPLN. INFO.: JP 1992-295163 19921104

OTHER SOURCE(S): MARPAT 121:233080

IT 158498-51-2P 158498-60-3P 158498-72-7P

158498-75-0P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(indolenine cyanine dyes)

RN 158498-51-2 CAPLUS

CN 3H-Indolium, 2-[2-[3-[[1,3-dihydro-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-2-phenoxy-1-cyclopenten-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt, tripotassium salt (9CI) (CA INDEX NAME)

#### ●3 K

RN 158498-60-3 CAPLUS

CN 3H-Indolium, 2-[2-[2-(4-carboxyphenoxy)-3-[[1,3-dihydro-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-1-cyclopenten-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt, tetrapotassium salt (9CI) (CA INDEX NAME)

#### ●4 K

RN 158498-72-7 CAPLUS

CN 3H-Indolium, 2-[2-[2-(3,4-dicarboxyphenoxy)-3-[[1,3-dihydro-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-1-cyclopenten-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt, pentapotassium salt (9CI) (CA INDEX NAME)

●5 K

RN 158498-75-0 CAPLUS
CN 3H-Indolium, 2-[2-[3-[[1,3-dihydro-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-2-[(5-sulfo-1-naphthalenyl)oxy]-1-cyclopenten-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt, tetrapotassium salt (9CI) (CA INDEX NAME)

●4 K

II, R=Cl III, R=SCH<sub>2</sub>CO<sub>2</sub>K

AB The title dyes useful for photog., optical recording, stains, intermediates, etc. have the general formula I (R = SR1, OR1, NR4R5, CHR6R7; R1 = alkyl, aryl; R2, R3 = alkyl containing acid group; R4 = alkyl, aryl; R5 = H, alkyl, aryl; R6, R7 = cyano, sulfo, alkylcarbonyl, arylcarbonyl, carbamoyl, sulfonyl, R6R7 = ring member; Z1, Z2 = acid group-containing benzo or naphtho ring member; X- = anion; m = 2, 3; n = 1,2). II was treated with thioglycolic acid in water in the presence of Et3N and recrystd. from MeOH-KOAc to obtain III.

L4 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1994:521602 CAPLUS

DOCUMENT NUMBER:

121:121602

TITLE:

Silver halide photographic material

INVENTOR(S):
PATENT ASSIGNEE(S):

Harada, Toru; Fujiwara, Itsuo Fuji Photo Film Co., Ltd., Japan

Eur. Pat. Appl., 34 pp.

SOURCE:

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
EP 580145	A2	19940126	EP 1993-111683	-	19930721
EP 580145	A3	19940413	EP 1993-111663		19930721
	<del>-</del>				
EP 580145	B1	20000329			
R: DE, FR, GB					
JP 06043583	A2	19940218	JP 1992-215702		19920722
JP 2955803	B2	19991004			
US 5445930	Α	19950829	US 1994-329672		19941025
US 5738982	Α	19980414	US 1995-468307		19950606
PRIORITY APPLN. INFO.:			JP 1992-215702	Α	19920722
			US 1993-93616	В1	19930720
•			US 1994-329672	A3	19941025

OTHER SOURCE(S):

MARPAT 121:121602

IT 156773-32-9P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and use of, as IR-absorbing dye for silver halide photog. material)

RN 156773-32-9 CAPLUS

CN 3H-Indolium, 2-[2-[3-[[1,3-dihydro-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-2-(4-sulfophenoxy)-1-cyclopenten-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt, tetrapotassium salt (9CI) (CA INDEX NAME)

●4 K

GI

AB A novel silver halide photog. material is provided, comprising a hydrophilic colloidal layer containing at least one dye represented by formula I wherein Y1 and Y2 each represents a chalcogen atom, -CH=CH-, -N(R10)-, or -C(R10)(R11)-, in which R10 and R11 each represents an alkyl group; Z1 and Z2 each represents a nonmetallic atom group necessary for forming a benzo condensed or naphtho condensed ring; R1 and R2 each represents an alkyl group; the plurality of L groups may be the same or different and each represents a methine group, with the proviso that at least one of the plurality of L groups represents a methine group substituted by -OR12, -N(R12)(R13), -SR12 or -CH(R14)(R15), in which R12 represents an alkyl or aryl group substituted by an acidic substituent, R13 represents a hydrogen atom or an alkyl or aryl group substituted by an acidic substituent, and R14 and R15 each represents a cyano group, a carboxylic acid group, an acyl group, an alkoxycarbonyl group, an aryloxycarbonyl group, a carbamoyl group, a sulfonyl group or a sulfamoyl group, with the proviso that at least one of R14 and R15 contains an acidic substituent; X represents an anion; p represents an integer 0 or 1; r represents an integer 0 or 1; m represents an integer 2 or 3; and n represents an integer 1 or 2, with the proviso that when the dye forms an intramol. salt, n is 1 and the dye contains at least three acidic substituents.

ANSWER 10 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN L4

ACCESSION NUMBER: 1990:621435 CAPLUS

DOCUMENT NUMBER: 113:221435

TITLE: Optical recording medium and manufacture thereof

INVENTOR(S): Umehara, Masaaki

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02122984	A2	19900510	JP 1988-276087	19881102
PRIORITY APPLN. INFO.:			JP 1988-276087	19881102

·IT 130631-45-7 RL: USES (Uses)

(light reflection layer containing, for optical recording medium)

RN

130631-45-7 CAPLUS 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-CN ylidene) ethylidene] -2-hydroxy-4-oxo-1-cyclobuten-1-yl] ethenyl] -1,3,3trimethyl-, inner salt (9CI) (CA INDEX NAME)

AB In an optical recording medium comprising a substrate, a subbing layer, an organic dye-based light reflection layer, and a light-absorbing layer, the light-reflecting layer has a spectral reflectivity peak around the record-regenerating wavelength and has a film thickness which maximizes the record-regenerating wavelength light reflectivity.

ANSWER 11 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1988:483107 CAPLUS

DOCUMENT NUMBER: 109:83107

TITLE: Polymethine dyes with hydrocarbon-bridge in the

chromophore. I. Electronic energy levels of thiatricarbocyanines and their connection with

effectiveness of the photographic effect

AUTHOR (S): Slominskii, Yu. L.; Shapiro, B. I.; Kachkovskii, A.

D.; Kurkina, L. G.; Radchenko, I. D.; Chizhova, M. A.;

Tolmachev, A. I.

CORPORATE SOURCE:

Inst. Org. Khim., Kiev, USSR

SOURCE: Journal of Information Recording Materials (1988),

16(1), 23-31

CODEN: JIRMEA; ISSN: 0863-0453

DOCUMENT TYPE:

Journal LANGUAGE: Russian

IT 114766-93-7 114766-96-0

RL: USES (Uses)

(electronic energy levels and redox potentials and photog. sensitizing properties of)

RN 114766-93-7 CAPLUS

CN Benzothiazolium, 3-ethyl-2-[2-[3-[(3-ethyl-2(3H)-benzothiazolylidene)ethylidene]-2-methoxy-1-cyclopenten-1-yl]ethenyl](9CI) (CA INDEX NAME)

RN 114766-96-0 CAPLUS

CN Benzothiazolium, 3-ethyl-2-[2-[3-[(3-ethyl-2(3H)-benzothiazolylidene)ethylidene]-2-[[(4-methylphenyl)sulfonyl]oxy]-1-cyclopenten-1-yl]ethenyl]- (9CI) (CA INDEX NAME)

AB A complex investigation by spectral and polarog. measurements as well as quantum-chemical calcns. were carried to estimate the relative and absolute position

of the frontier electron levels of thiatricarbocyanines with polymethylene bridges in the chromophore and their influence upon sensitizing properties in photog. The effects of polymethine groups and substitutions in the meso position on properties of thiatricarbocyanines was analyzed. Hydrocarbon-bridges have comparatively little effect on calculated energy levels and redox-potentials. Spectral properties are more sensitive. However, such groups can play the role of an insulator of polymethine chain against O and H2O mols. in the emulsion. With that is connected a considerable increase of the photog. effectiveness of thiatricarbocyanines having a trimethylene bridge.

L4 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1987:449658 CAPLUS

DOCUMENT NUMBER: 107:49658

TITLE: Optical information recording media

INVENTOR(S): Oba, Hideaki; Sato, Tsutomu; Umehara, Masaaki; Abe,

Michiharu

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent Japanese

LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61248789	A2	19861106	JP 1985-88773	19850426
JP 2521702	B2	19960807		
PRIORITY APPLN. INFO.:			JP 1985-88773	19850426

IT 109163-50-0

RL: USES (Uses)

(optical information recording material containing, with high preservability)

RN 109163-50-0 CAPLUS

CN 3H-Indolium, 2-[2-[2-(acetyloxy)-3-[[7-bromo-1-(4-carboxybutyl)-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]ethylidene]-1-cyclopenten-1-yl]ethenyl]-7-bromo-1-(4-carboxybutyl)-3,3-dimethyl-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 109163-49-7 CMF C41 H47 Br2 N2 O6

CM 2

CRN 21228-90-0 CMF C H3 O4 S

Me- 0- SO3-

GI For diagram(s), see printed CA Issue.

AB The title media contain recording layers containing I [R = halo; a = 1-4; R1, R2 = C1-3 alkyl; R3 = C1-10 alkyl (substituted with sulfonyl or carboxyl); X- = perhalogenate ion, p-toluenesulfonate ion, alkylsulfate ion; X- does not exist when inner salt is formed by elec. charge on R3; Z = II; R4 = H, halo, NH2, alkanoyloxy; A = 4-8 membered ring; m, n = 0-3; (m + n) ≤3]. The media show high C/N ratio and stability to light and heat and are suitable for semiconductor laser recording. Thus, a recording medium prepared by using a recording layer containing I (R = 7-Br; a = 1; R1 = R2 = R3 = Me; X- = BF4-; Z = III) showed high preservability.

L4 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1987:51677 CAPLUS

DOCUMENT NUMBER:

106:51677

TITLE:

Thiaketocyanine dyes with an o-phenylene bridge in the

10/665,227R>

chromophore

AUTHOR (S):

Sosnovskii, G. M.; Lugovskii, A. P.

CORPORATE SOURCE:

Beloruss. Gos. Univ., Minsk, USSR

SOURCE:

Zhurnal Organicheskoi Khimii (1986), 22(9), 1956-8

CODEN: ZORKAE; ISSN: 0514-7492

DOCUMENT TYPE:

Journal Russian

LANGUAGE:

OTHER SOURCE(S):

CASREACT 106:51677 106290-85-1P 106290-87-3P 106315-12-2P

106335-20-0P

RL: MSC (Miscellaneous); SPN (Synthetic preparation); PREP (Preparation) (dyes, preparation and hydrolysis of)

RN106290-85-1 CAPLUS

CN

Benzothiazolium, 2-[2-[2-(acetyloxy)-1-[(3-ethyl-2(3H)benzothiazolylidene)ethylidene]-1H-inden-3-yl]ethenyl]-3-ethyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM

CRN 106290-84-0

CMF C33 H29 N2 O2 S2

CM2

CRN 16722-51-3 CMF C7 H7 O3 S

RN 106290-87-3 CAPLUS

CN Benzothiazolium, 2-[2-[2-(acetyloxy)-1-[(3-methyl-2(3H)benzothiazolylidene) ethylidene] -1H-inden-3-yl] ethenyl] -3-methyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM1

CRN 106290-86-2

C31 H25 N2 O2 S2 CMF

CM 2

CRN 16722-51-3 CMF C7 H7 O3 S

RN 106315-12-2 CAPLUS

CN Benzothiazolium, 2-[2-[2-(acetyloxy)-1-[(3-ethyl-5-methoxy-2(3H)-benzothiazolylidene)ethylidene]-1H-inden-3-yl]ethenyl]-3-ethyl-5-methoxy-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 106315-11-1 CMF C35 H33 N2 O4 S2

10/665,227R>

CRN 16722-51-3 CMF C7 H7 O3 S

RN 106335-20-0 CAPLUS

CN Naphtho[1,2-d]thiazolium, 2-[2-[2-(acetyloxy)-1-[(1-methylnaphtho[1,2-d]thiazol-2(1H)-ylidene)ethylidene]-1H-inden-3-yl]ethenyl]-1-methyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 106335-19-7 CMF C39 H29 N2 O2 S2

CM 2

CRN 16722-51-3 CMF C7 H7 O3 S

The title dyes [I; R = H, OMe; R1 = H; RR1 = (CH:CH)2; R3 = Et, Me] were AB prepared by condensation of 1,3-bis(dimethylaminomethylene)-2-indanone [3220-79-9] with quaternary salts of 2-methylbenzothiazole derivs. in Ac20 to give meso-acetoxy tricarbocyanines, which were hydrolyzed to the keto analogs. I absorbed at shorter wavelengths than analogous keto cyanines containing a saturated bridge in the polymethine chain. The hypsochromic shift was 20-65 nm. I had absorption maximum in the region 500-550 nm.

ANSWER 14 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1984:53180 CAPLUS

DOCUMENT NUMBER:

100:53180

TITLE:

Synthesis of meso-substituted tricarbocyanine dyes

with an o-phenylene bridge in the chromophore

AUTHOR (S):

Sosnovskii, G. M.; Lugovskii, A. P.; Tishchenko, I. G.

CORPORATE SOURCE:

Beloruss. Gos. Univ., Minsk, USSR

Zhurnal Organicheskoi Khimii (1983), 19(10), 2143-6 CODEN: ZORKAE; ISSN: 0514-7492

DOCUMENT TYPE:

Journal

LANGUAGE:

SOURCE:

Russian

OTHER SOURCE(S):

CASREACT 100:53180

88505-00-4P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and spectra of)

88505-00-4 CAPLUS RN

CN Benzothiazolium, 2-[2-[2-ethoxy-1-[(3-ethyl-2(3H)-

benzothiazolylidene)ethylidene]-1H-inden-3-yl]ethenyl]-3-ethyl-;

perchlorate (9CI) (CA INDEX NAME)

CM 1

88504-99-8 CRN

C33 H31 N2 O S2 CMF

CM 2

CRN 14797-73-0 CMF Cl O4

GI

$$X$$
 $CH = CH$ 
 $R$ 
 $CHCH$ 
 $N$ 
 $Et$ 
 $C104$ 

The phenylene-bridged tricarbocyanines I (R = OEt, Ph; X = S, CH:CH, CMeEt) and an analogous 4,4'-quinotricarbocyanine absorb at lower wavelength than the resp. ethylene-bridged compds. by 70-100 nm.

2-Indanone (II) [615-13-4] was converted to the enol ether with HC(OEt)3, bis-aminoformylated with DMF-POCl3, and condensed with heterocyclic quaternary compds. to give two I (R = OEt) and the analog. II was treated with PhMgBr, condensed with Me2NCH(OMe)2, aminoformylated, and condensed with heterocyclic quaternary compds. to give the remaining three I. The I are luminescent with a low quantum yield (10-15%).

L4 ANSWER 15 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1984:35826 CAPLUS

DOCUMENT NUMBER: 100:35826

TITLE: Polymethine dyes with hydrocarbon bridges. Enamine

ketones in the chemistry of cyanine dyes

Ι

AUTHOR(S): Slominskii, Yu. L.; Radchenko, I. D.; Popov, S. V.;

Tolmachev, A. I.

CORPORATE SOURCE: Inst. Org. Khim., Kiev, USSR

SOURCE: Zhurnal Organicheskoi Khimii (1983), 19(10), 2134-42

CODEN: ZORKAE; ISSN: 0514-7492

DOCUMENT TYPE: LANGUAGE:

Russian

Journal

OTHER SOURCE(S): CASREACT 100:35826

IT 88340-54-9P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and visible absorption of)

RN 88340-54-9 CAPLUS

CN 3H-Indolium, 2-[2-[3-[4-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-2butenylidene]-2-methoxy-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 88340-53-8 CMF C34 H39 N2 O

CM 2

CRN 14797-73-0 CMF Cl O4

GI

AB Cyclopentanone [120-92-3] and cyclohexanone [108-94-1] react with Me2NCH(OMe)2 [4637-24-5] to give the mono- and bis(enamine) ketones, which are useful in the synthesis of merocyanines and cyanines with bridging groups. For example, 2-(dimethylaminomethylene)cyclohexanone [6135-19-9] reacted with 3-ethyl-2-methylbenzothiazolium p-toluenesulfonate [14933-76-7] in boiling pyridine to give I [88340-49-2] in 87% yield and with 2-(dimethylaminovinyl)-3-

ethylbenzothiazolium iodide [17579-01-0] in pyridine containing NaOMe to give II [88340-50-5] in 71% yield. O-Methylation of II, reaction with PhNH2, and condensation with N-ethylrhodanine [7648-01-3] gave III [88340-51-6] in 26% yield, based on II. 1H NMR studies showed that I and II, as well as their cyclopentanone analogs, have a pseudo-trans configuration.

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